

DOCKET NO.: JANS-0087 (PRD2056USPCT)

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:

Thomas Horst Wolfgang Steckler, et al.

Confirmation No.: 6657

Application No.: 10/552,527

Group Art Unit: 1625

Filing Date: October 11, 2005

Examiner: Celia C. Chang

**For: SUBSTITUTED 4-PHENYL-4-[1H-IMIDAZOL-2-YL]-PIPERIDINE
DERIVATIVES AS SELECTIVE NON-PEPTIDE DELTA OPIOD AGONISTS
WITH ANTIDEPRESSANT AND ANXIOLYTIC ACTIVITY**

ELECTRONICALLY FILED
DATE OF DEPOSIT: June 1, 2007

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 CFR § 1.56 and in accordance with 37 CFR §§ 1.97-1.98, information relating to the above-identified application is hereby disclosed. Inclusion of information in this statement is not to be construed as an admission that this information is material as that term is defined in 37 CFR § 1.56(b).

- ☒ In accordance with § 1.97(b), since this Information Disclosure Statement is being filed either within three months of the filing date of the above-identified application, within three months of the date of entry into the national stage of the above identified application as set forth in § 1.491, before the mailing date of a first Office Action on the merits of the above-identified application, or

before the mailing date of a first Office Action after the filing of request for continued examination under § 1.114, no additional fee is required.

- ☒ Copies of reference numbers **4-45** listed on the attached Form PTO-1449 are enclosed herewith.
- ☒ Copies of reference numbers **1-3** on the attached Form PTO 1449 are not required to be submitted pursuant to 37 CFR § 1.98(a)(2)(ii).
- ☒ The relevance of those listed references which are not in the English language is as follows:

English language abstracts have been provided for those listed references which are not in the English language.

Please charge any deficiency or credit any overpayment to Deposit Account No. 23-3050.

Date: June 1, 2007

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Form PTO-1449 Modified List of Patent and Publications Cited by Applicant (Use several sheets if necessary) U.S. Department of Commerce Patent and Trademark Office	Docket No. JANS-0087 (PRD2056USPCT)	Application No. 10/552,527
	Applicant Thomas Horst Wolfgang Steckler et al.	
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U. S. PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Name	Class	Subclass
	1	5,354,863	10/11/94	Dappen et al.	546	35
	2	6,022,895	02/08/00	Zimmer et al.	514	548
	3	2002/0165247 A1	11/07/02	Strassburger	514	279

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FOREIGN PATENT DOCUMENTS

Examiner Initial		Document No.	Date	Country	Translation	
					YES	NO
	4	1 038 872 A1	09/27/00	EP		
	5	0 864 559 B1	06/05/02	EP	X abstract	
	6	4-275288 A	09/30/92	JP	X abstract	
	7	00/14066 A1	03/16/00	WO		
	8	00/37470 A1	06/29/00	WO		
	9	01/46192 A1	06/28/01	WO	X abstract	
	10	02/094810 A1	11/28/02	WO		
	11	03/033486 A1	04/24/03	WO		
	12	03/039440 A2	05/15/03	WO		
	13	93/15062 A1	08/05/93	WO		
	14	95/04734 A1	02/16/95	WO		
	15	95/31464 A1	11/23/95	WO		
	16	96/22276 A1	07/25/96	WO	X abstract	
	17	97/10216 A1	03/20/97	WO		
	18	98/28270 A1	07/02/98	WO		
	19	98/28275 A1	07/02/98	WO		

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NON-PATENT DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	20	Alt, A. et al., "Stimulation of guanosine-5' -O-(3-[³⁵ S]thio)triphosphate binding by endogenous opioids acting at a cloned Mu receptor," <i>J. Pharmacol. Exp. Ther.</i> , 1998, 286, 282-288
	21	Baamonde, A. et al., "Antidepressant-type effects of endogenous enkephalins protected by systemic RB 101 are mediated by opioid delta and dopamine D1 receptor stimulation" <i>Eur. J. Pharmacol.</i> , 1992, 216(2), 157-166
	22	Borsini, F. and Meli, A., "Is the forced swimming test a suitable model for revealing antidepressant activity?" <i>Psychopharmacology</i> , 1988, 94(2), 147-160
	23	Bradford, M.M., "A rapid and sensitive method for the quantification of microgram quantities of protein utilizing the principle of protein-dye binding," <i>Analytical Biochem.</i> , 1976, 72, 248-254
	24	Broom, D. C. et al., "Behavioral effects of delta-opioid receptor agonists: Potential antidepressants?" <i>Japanese Journal of Pharmacology</i> , September 2002, 90(1), 1-6
	25	Broom, D. C. et al., "Nonpeptidic delta-opioid receptor agonists reduce immobility in the forced swim assay in rats," <i>Neuropsychopharmacology</i> , 2002, 26(6), 744-755
	26	Dirks, A. et al., "Effects of corticotropin-releasing hormone on distress vocalizations and locomotion in maternally separated mouse pups," <i>Pharmacol. Biochem. Behav.</i> , 2002, 72(4), 993-999
	27	Drolet, G. et al., "Role of endogenous opioid system in the regulation of the stress response," <i>Prog. Neuro-Psychopharmacol. Biol. Psychiatry</i> , 2001, 25(4), 729-741
	28	Filliol, D. et al., "Mice deficient for delta- and mu-opioid receptors exhibit opposing alterations of emotional responses," <i>Nature Genet.</i> , 2000, 25(2), 195-200
	29	Galligan, J. J. et al., "Cerebral delta opioid receptors mediate analgesia but not the intestinal motility effects of intracerebroventricularly administered opioids," <i>J. Pharm. Exp. Ther.</i> , 1984, 229(3), 641-648
	30	Lazareno, S., "Measurement of agonist-stimulated [³⁵ S]GTPγS binding to cell membranes," <i>Meth. Molec. Biol.</i> , 1999, 106, 231-243
	31	Lord, J.A.H. et al., "Endogenous opioid peptides: multiple agonists and receptors," <i>Nature</i> , 1977, 267(5611), 495-499
	32	Malatynska E. et al., "Human & opioid receptor: a stable cell line for functional studies of opioids," <i>NeuroReport</i> , 1995, 6(4), 613-616

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	33	Olivier, B. et al., "Rat pup ultrasonic vocalization: effects of benzodiazepine receptor ligands," <i>Eur. J. Pharmacol.</i> , 1998, 358(2), 117-128	
	34	Pohorecky, L. A. et al., "Effect of chronic social stress on delta-opioid receptor function in the rat," <i>J. Pharmacol. Exp. Ther.</i> , 1999, 290, 196-206	
	35	Porsolt et al., <i>Psychopharmacology</i> , 1986, 89, S28	
	36	Portoghese, P. S. et al., "Naltrindole, a highly selective and potent non-peptide & opioid receptor antagonist," <i>Eur. J. Pharmacol.</i> , 1988, 146, 185-186	
	37	Sanchez, M. D. et al., "Autoradiographic evidence of delta-opioid receptor downregulation after prenatal stress in offspring rat brain," <i>Pharmacology</i> , 2000, 60, 13-18	
	38	Smart, D. et al., "The effects of recombinant rat μ -opioid receptor activation in CHO cells on phospholipase C, $[Ca^{2+}]_i$ and adenylyl cyclase," <i>Br. J. Pharmacol.</i> , 1997, 120(6), 1165-1171	
	39	Stella, V. J. et al., "Prodrugs," <i>Drug Delivery Systems</i> , 1985, pp. 112-176	
	40	Stella, V. J. et al., "Prodrugs. Do they have advantages in clinical practice?" <i>Drugs</i> , 1985, 29(5), 455-473	
	41	Steru, L. et al., "The tail suspension test: a new method for screening antidepressants in mice," <i>Psychopharmacology</i> , 1985, 85(3), 367-370	
	42	Tejedor-Real, P. et al., "Effect of mixed (RB 38A) and selective (RB 38B) inhibitors of enkephalin degrading enzymes on a model of depression in the rat," <i>Biol. Psychiatry</i> , 1993, 34(1-2), 100-107	
	43	Tejedor-Real, P. et al., "Implication of endogenous opioid system in the learned helplessness model of depression," <i>Pharmacol. Biochem. Behav.</i> , 1995, 52, 145-152	
	44	Tejedor-Real, P. et al., "Involvement of delta-opioid receptors in the effects induced by endogenous enkephalins on learned helplessness model," <i>Eur. J. Pharmacol.</i> , 1998, 354, 1-7	
	45	Vilpoux, C. et al., "Differential effects of chronic antidepressant treatments on micro- and delta-opioid receptors in rat brain," <i>Eur. J. Pharmacol.</i> , 2002, 443(1-3), 85-93	

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